

Remarks

Applicant requests reconsideration of this application in view of the foregoing amendments and following remarks. Claims 1-11, 14, 17, 18, 22, 25-27, 30, 32, 34, and 36-42 are currently pending. Claims 1, 3, 25-27, 36, and 38 have been amended. No claims have been canceled, and new claims 43-48 have been added. No new matter has been added by Applicant's requested amendments and new claims. Therefore, upon entry of this amendment, claims 1-11, 14, 17, 18, 22, 25-27, 30, 32, 34, and 36-48 will be pending

Rejections under 35 U.S.C. § 103(a)

Claims 1-11, 14, 17, 18, 22, 25-27, 30, 32, 34, and 36-42 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. RE37,645 E to Takahashi *et al.* (Takahashi). Applicant disagrees.

The Office action states that Takahashi teaches a paper product substantially as claimed. Although the Examiner acknowledges that Takahashi does not disclose a marking-erasable coating, the Examiner alleges it would have been obvious to one of ordinary skill in the art to coat paper with a coating that is marking-erasable, and that it would have been obvious to select a water-soluble coating and optimize its properties since it would improve recycling of the paper. (Office action, page 2.)

Claim 1

Amended independent claim 1 recites, "A paper product having a base sheet and a substantially continuous marking-erasable coating disposed on at least one surface of the base sheet, where the marking-erasable coating is suitable for marking with an ink, and where the ink

does not bond to the at least one surface of the base sheet." As a first matter, the meaning of the term "marking-erasable coating" must be understood. MPEP § 2111.01(I) states that claim limitations must be given their "plain meaning" unless such meaning is inconsistent with the specification. The "plain meaning" refers to the meaning that the term would have to a person of ordinary skill in the art. The term "erasable" means capable of being erased. The plain meaning of the verb "erase" is to remove (something written, for example) by rubbing, wiping, or scraping. (The American Heritage® Dictionary of the English Language: Fourth Edition, 2000.) A person of ordinary skill in the art commonly conceives of erasing as being a physical act involving rubbing or wiping a surface with an object (*i.e.*, an eraser) to remove written or drawn marks, *e.g.*, wiping chalk markings from a chalkboard with a felt eraser or rubbing pencil markings from a piece of paper with a rubbery eraser. Thus, a marking-erasable coating is a coating from which written or drawn markings can be removed by rubbing, wiping, or scraping.

Applicant believes the obviousness rejection over Takahashi is improper for several reasons. For example, the Examiner's proposed modification to Takahashi's invention would change the principle of operation of Takahashi's invention. As stated in MPEP § 2143.01, "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Takahashi does not disclose a paper product having a base sheet and a substantially continuous marking-erasable coating suitable for marking with an ink, where the ink does not bond to the base sheet surface. Instead, Takahashi discloses a method for removing an image-forming substance (*i.e.*, toner) from an image-holding member (*i.e.*, paper). Takahashi's method begins with an image-forming substance stably attached to an image-holding member:

"[A]n unstabilizing agent is provided to the image holding member. *An attaching state* between the image forming substance and the image holding member stably attaching the image forming substance on a surface thereof *is changed to an unstable state* by the unstabilizing agent. The image forming substance is separated and removed from the image holding member by making a separating member come in close contact with the image forming substance on the image holding member having the provided unstabilizing agent."
(Abstract, emphasis added.)

A person of ordinary skill in the art would conclude that the image-forming substance is attached securely to the image-holding member and is not removable without application of the unstabilizing agent. In other words, Takahashi's invention operates on the principle of changing the stability of the attachment between the image-forming substance and the image-holding member, and subsequently removing the image-forming substance.

In contrast, the present invention comprises a base sheet having a substantially continuous marking-erasable coating disposed on at least one surface of the base sheet. Ink markings, such as from a dry-erase marker or an ink marker, are applied to the coated base sheet. The ink does not bond to the base sheet surface. In other words, the ink does not form a secure attachment to the surface. The markings are removed subsequently without applying an unstabilizing agent to the paper surface to destabilize the attachment between the markings and the paper surface prior to marking removal. There is no change in the attachment stability during the timeframe between the application of the markings and their subsequent removal.

Coating Takahashi's image-holding member with a substantially continuous marking-erasable coating before applying the image-forming substance would change the principle of operation. Clearly, the image-forming substance would not form a stable attachment to the image-holding member in the presence of the substantially continuous marking-erasable coating. Without a stable attachment, there would be no need to apply an unstabilizing agent prior to contacting the image-forming substance with the separation member. Thus, a person of ordinary

skill in the art would not be motivated by Takahashi to make the claimed product, because to do so would require changing the entire principle of operation as disclosed by Takahashi.

Furthermore, the present invention solves a problem not addressed by Takahashi. The purpose of the present invention is to allow a consumer to apply ink markings to a paper product, and to allow the consumer to quickly and easily erase the ink markings without applying any solvents to the paper product and without using any specialized apparatus to remove the markings. The consumer can then reuse the paper product. Thus the product can be used in a wide variety of settings, including a consumer's home or office. However, Takahashi requires using both solvents and specialized apparatus to remove the image-forming substance from the image-holding member. *See* Takahashi, at col. 5, line 62 to col. 10, line 38. Takahashi's product and method clearly are not intended for use by a consumer at home or in an office setting. Also, because the Takahashi product requires special solvents and apparatus to remove markings, it cannot have the same composition as that claimed by Applicant. Accordingly, Applicant believes the Examiner has not made a *prima facie* case of obviousness over Takahashi and requests withdrawal of the claim 1 obviousness rejection.

Claims 2-11, 14, 17-18, and 22

Claims 2-11, 14, 17-18, and 22 depend directly or indirectly from claim 1 and are allowable for at least the reasons discussed above, as well as based upon each claim's unique and non-obvious combination of features. For example, claim 4 recites, "...liquid ink from a black dry erase marker can be applied to the surface of the marking-erasable coating, allowed to dry, and then erased with a dry cloth, where the liquid ink has a marker density greater than about 0.5 after drying and a residual marker density less than about 0.1 after being erased." Takahashi

neither teaches nor suggests a paper product from which dry-erase marker ink can be erased using a dry cloth. Takahashi discloses a paper product from which an image-forming substance (*i.e.*, toner) is removed through a process in which a permeation accelerating liquid and a processing liquid are applied to the paper. Following application of the permeation accelerating and processing liquids, heat is applied to the paper sheet to soften the toner. A separating roller then removes the toner from the paper. (Col. 11, line 66 to col. 12, line 19.) The separating roller surface "is constructed by using an adhesive material formed such that an adhesive force between this surface and softened toner is stronger than at least an adhesive force between the transfer paper sheet 10 and the softened toner." (Col. 7, ll. 59-64.) Not only does Takahashi require using a permeation accelerating liquid, a processing liquid, and heat to aid ink/toner removal, but the separating roller clearly is not analogous to the dry cloth used to erase markings from the instant paper product. A person of ordinary skill in the art would not expect that wiping Takahashi's image-holding member with a dry cloth would erase the toner thereon.

Claims 9 and 10, respectively, recite that the paper product has a Gurley density greater than about 1,000 seconds and a Sheffield smoothness less than about 200 cubic centimeters per second. Takahashi makes no disclosure whatsoever regarding the Gurley density and Sheffield smoothness of the disclosed image-holding member.

Claim 14 recites a paper product according to claim 1 where the base sheet comprises "a base-sheet core, comprising a network of fibers; and a base-sheet coating, comprising a pigment and a binder." Takahashi does not disclose a paper product comprising a base-sheet core, a base-sheet coating comprising a pigment and a binder, and a marking-erasable coating.

Claim 22 recites a marking-erasable coating that "contains substantially no surface-exposed pigment particles." Takahashi does not disclose a paper product with a marking-erasable coating that contains substantially no exposed pigment particles.

Claim 25

Claim 25 recites a method for making a paper product, comprising: "providing a base sheet; applying a substantially continuous marking-erasable coating to at least one surface of the base sheet to form the paper product, where the marking-erasable coating is water-soluble or water-dispersible, and where the marking erasable coating is suitable for marking with an ink; and subsequently calendering the paper product." In contrast, Takahashi discloses a method for removing existing markings from a paper product. Takahashi does not produce a calendered paper product having a substantially continuous marking-erasable coating. Nor does Takahashi teach or suggest applying a substantially continuous marking-erasable coating to a paper product and subsequently calendering the coated paper product.

Additionally, there is no suggestion or motivation in Takahashi to apply a marking-erasable coating to the image-holding member prior to applying the image-forming substance. Applying such a coating would change the principle of operation of Takahashi's invention. As previously discussed, Takahashi's method is directed to removing existing toner markings that are stably attached to a paper sheet, *i.e.*, "permanent." A person of ordinary skill in the art recognizes that toner markings typically cannot be simply erased from a sheet of paper. Instead, Takahashi discloses that permeation accelerating and processing liquids are applied to the paper surface to destabilize the attachment between the toner markings and the paper surface. Next, heat is applied to the destabilized toner markings to soften the markings, which are then removed

from the paper surface by contact with a separating roller having an adhesive surface. Takahashi does not disclose calendaring the paper. Thus, claim 25 is not obvious over the cited reference, and Applicant requests withdrawal of the rejection.

Claims 26, 27, 30, 32, and 34

Claims 26, 27, 30, 32, and 34 depend directly or indirectly from claim 25 and are allowable for at least the reasons set forth above in relation to claim 25, as well as based upon each claim's unique and non-obvious combination of features. For example, claims 26 and 27 recite, respectively, that the paper product has a Gurley density greater than about 1,000 seconds and a Sheffield smoothness less than about 200 cubic centimeters per second. Takahashi does not disclose a method for making a paper product with such features.

Claim 32 recites a base sheet comprising, "a base-sheet core, comprising a network of fibers; and a base-sheet coating, comprising a binder." Takahashi does not teach or suggest a paper product comprising a base-sheet core and a base-sheet coating including a binder.

Claim 36

Claim 36 recites a kit, comprising "a paper product, comprising a base sheet and a substantially continuous marking-erasable coating suitable for marking with an ink, where the marking-erasable coating is water-soluble or water dispersible; and a writing instrument that can be used to create erasable marks on the paper product." There is no disclosure in Takahashi of a kit comprising a paper product having a substantially continuous marking-erasable coating suitable for marking with an ink, and a writing instrument capable of creating erasable marks on the paper product. Instead, Takahashi discloses a method for removing markings from paper by

destabilizing a secure attachment between the markings and the paper, and subsequently removing the markings. There is no disclosure of a writing instrument that can be used to create erasable marks on the paper. Accordingly, claim 36 is not obvious over the cited prior art, and Applicant requests that the rejection be withdrawn.

Claims 37 and 39-42

Claims 37 and 39-42 depend directly or indirectly from claim 36 and are allowable for at least the reasons discussed above, as well as based upon each claim's unique and non-obvious combination of features. For example, claim 37 recites that the kit further comprises "an eraser that can be used to erase marks made on the paper product by the writing instrument."

Takahashi does not disclose a kit comprising a paper product having a substantially continuous marking-erasable coating, a writing instrument, and an eraser.

Claims 39-42 recite several embodiments of the writing instrument, including an ink marker, which can be used to apply liquid ink or permanent ink, and a dry erase marker.

Takahashi does not disclose an ink marker or a dry erase marker capable of creating erasable marks on a paper having a marking-erasable coating.

Claim 38

Claim 38 recites, "A note paper product, comprising a sheet having a first surface and a second surface, where at least a portion of the second surface is covered with an adhesive material, the sheet comprises a base sheet and a substantially continuous marking-erasable coating disposed on at least one surface of the base sheet, where the marking-erasable coating is suitable for marking with an ink, and where the ink does not bond to the at least one surface of

the base sheet." As previously discussed in relation to claim 1, Takahashi does not disclose a paper product having a base sheet and a substantially continuous marking-erasable coating suitable for marking with an ink, where the ink does not bond to the base sheet surface. Applying such a marking-erasable coating would change the principle of operation of Takahashi's invention. Additionally, Takahashi does not disclose a paper product having a second surface where at least a portion of the second surface is covered with an adhesive material. Thus, claim 38 is not obvious over the cited reference, and Applicant requests withdrawal of the rejection.

New Claims

Claims 43-48 have been added. The claims include no new matter. Claims 43 and 44 depend from claims 32 and 34, respectively, and indirectly from claim 25. Claims 43 and 44 recite dry coating weights for the marking-erasable coating. Support for these claims can be found in the specification, *e.g.*, at page 14, ll. 22-30. Claims 43 and 44 are allowable over Takahashi for at least the reasons discussed in relation to claim 25. Additionally, Takahashi does not disclose dry coating weights for a marking-erasable coating on a paper product.

Claims 45-47 recite a method for using a paper product having a marking-erasable coating. Support for these claims can be found throughout the specification, *e.g.*, at page 2, line 9 to page 3, line 2.) Takashi does not disclose a method for using a paper product having a substantially continuous marking-erasable coating, wherein marks are applied to the paper product with a writing instrument, and the marks subsequently are removed. Thus, claims 45-47 are allowable over Takahashi.

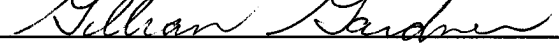
Claim 48 recites a paper product comprising a base sheet and a substantially continuous, marking-erasable coating. Specific coating components and characteristics of the paper product are recited. Support for this claim can be found throughout the specification, *e.g.*, at page 2, line 9 to page 3, line 29. Takahashi does not disclose a paper product having the combination of features recited in claim 48. Accordingly, claim 48 is allowable over Takahashi.

If there are any minor issues to be resolved before a Notice of Allowance is granted, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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